GOES–R Proving Ground

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Abstract

The GOES-R Proving Ground is partnering with NWS forecast offices, NCEP National Centers, the Joint Center for Satellite Data Assimilation, the NASA Short-Term Prediction Research and Transition Center, NOAA testbeds, and NOAA Cooperative Institutes in pre-operational demonstrations of select forecast and warning-decision making products that showcase the planned GOES-R capabilities (enhanced spectral, spatial, and temporal resolution) before launch. Developers and forecasters test and evaluate algorithms and decision aids using proxy and simulated data sets, including observations from current and future satellite instruments (MODIS, AIRS, IASI, SEVIRI, NPP/VIIRS/CrIS, TRMM/LIS), lightning networks, and computer simulated products. The products tested in 2012 included: cloud and moisture imagery, super rapid scan 1-minute imagery, cloud properties, a fog and low stratus product, convective initiation, volcanic ash detection and height, sulfur dioxide detection, aircraft icing threat, overshooting top detection, hurricane intensity estimates, red-green-blue (RGB) air mass decision aids, tropical cyclone rapid intensity index, lightning detection, and a "nearcasting" atmospheric instability product. This presentation will highlight the use of the GOES-R capabilities demonstrated at the Storm Prediction Center, the National Hurricane Center, Aviation Weather Center, Ocean Prediction Center, Weather Prediction Center, the NESDIS Satellite Analysis Branch, and from the six NWS regions.